

Assessing the Relevance of the System theory Practices in the Contemporary Business World

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Abstract

This paper was embarked on to assess the relevance of the system theory to the contemporary business. The study used a secondary source of data to collect necessary data for the study. The study population was the relevant text books and previous journal papers consulted to explore more insights about the system theory. The data collected enabled the authors to have analyzed and made relevant suggestions on the ways of applying the system theory within and across enterprise boundary in order to efficiently and effectively utilize available scarce resources towards achieving goals of enterprises.

Key terms: System Theory, Management, Management Evolution, Relevance, Practices.

1.1 Introduction

The term management has many definitions according to many authors we have in the field of management. Depending on their individual background, we have some definitions of management as follows: Weihrich et al, (2008) define management as “the process of designing and maintaining an environment in which individuals, working together in groups, efficiently accomplish selected aims”. In their view, managers carry out functions such as: planning, organizing, staffing, leading, and controlling. Also, management applies to any kind of organization, organizational levels, and it has the aim of creating surplus.

Furthermore, management is defined as all the activities and tasks undertaken for achieving goals by continuous activities like; planning, organizing, leading and controlling (iEduNote, 2023). From the foregoing views, it can be said that management encompasses the application of all the major roles of managers in getting things done or attaining targeted goals through the use of relevant resources. Management has evolved through many stages of development.

Different and varied views of management evolution are abounding according to different writers and practitioners. Weihrich et al (2008) summarized it into: Scientific management championed

by writers like; Frederick W. Taylor of Shop Management (1903), Principles of Scientific Management (1911), Testimony before the Special House Committee (1912); Henry Gantt (1901), and Frank and Lillian Gilbreth (1900). Modern Operational Management Theory by Henri Fayol; Behavioural Sciences by; Hugo Munsterberg (1912), Walter Dill Scott (1910, 1911), Max Weber (translations 1946, 1947), Vilfredo Pareto (books 1896-1917), Elton Mayo and F. J. Roethlisberger (1933), System theory by Chester Bernard, the functions of the Executive (1938), and modern management thought by many other writers like Peter F. Drucker (1974), William Ouchi (1981). The focus of this paper is on the “System Theory - assessing its relevance in the contemporary business world”. Why the need of assessing the relevance of system theory? What could be its weaknesses? This study is aimed at finding relevant answers to the above questions.

2.1 Literature Review

The evolution of the system theory dates back to the 1920s attributed to a biologist named Ludwig Bertalanffy who started a study in life science which has now grown to the modern field of ecology (Elujekwute et al, 2022). The system theory of management has been approached and described by many writers. First and foremost an understanding of the term system will help us in knowing the full concept of system management. Ng. et al (2009) as cited in Mele et al, (2010, p.127) define a system as an entity, which is a coherent whole such that a boundary is perceived around it in order to distinguish internal and external elements and to identify input and output relating to and emerging from the entity. In addition, Mele et al (p.127) define systems theory as a theoretical perspective that analyzes a phenomenon seen as a whole and not as simply the sum of elementary parts.

Furthermore, Flood and Jackson as cited in Chikere, and Nwoka, (2015, p.1) define a system as a complex and highly interlinked network of parts exhibiting synergistic properties- the whole is greater than the sum of its parts. They further explain it to be a collection of interrelated parts acting together to achieve some goal which exists in the environment. In another vein, Schoderbek, et al as cited in Chikere, and Nwoka, (2015, p.1) define system as a set of objects together with relationships between the objects and between their attributes related to each other and to the environment so as to create or form a whole. Chikere, and Nwoka, (2015) described the system theory as the relations between the parts, rather than reducing an entity into its parts or elements.

McShane and Von Glinow as cited in Chikere, and Nwoka, (2015, p.2) opine that organizational systems consists of many internal subsystems that need to be continually aligned with each other. That, as companies grow, they develop more and more complex subsystems that must coordinate with each other in the process of transforming inputs to outputs. In their views, the system theory is categorized into two areas of thought, which are: the cybernetic and closed systems and the biology and open systems respectively.

2.2 Types of Systems

- i. Cybernetics and closed systems thinking
Chikere and Nwoka (2015, p. 3) attributed a type of system to the work of Norbert Wiener who in 1949 at the Massachusetts Institute of Technology (MIT) found and exemplifies the field of cybernetics which is a modern version of closed thinking.

- According to him, the development of the field of cybernetics allowed diverse disciplines to communicate about their problems in the common language of systems theory.
- ii. **Biology and open systems thinking**
On the other hand, in Chikere and Nwoka (2015, p.3), open system was describe as a work that founded on the evolution of species done by Darwin. Also, a popular version of open systems is attributed to Ludwig Von Bertalanffy who in the term ‘general systems theory’ describes the key ideas and differentiates them from closed systems thinking. Bertalanffy insisted that closed systems thinking was not suitable to study biological phenomena because biological systems interact with their environment, grow and survive unlike closed systems which increase in entropy or the tendency to maximum disorder.

2.3 Qualities of an Ideal System

Harry (1990) as cited in Chikere and Nwoka (2015, p.5) describes a quality system with the following elements:

- i. **Components:** a system consists of more than one part called component elements of a system.
- ii. **Connection:** the form of this connection is fixed in an organized way called structure. The concepts of structure and organization become more interesting in large systems, where more than just one or two possible structures or organizations may be considered.
- iii. **Interaction:** the components affect each other by their presence in or removal from the system which results from the system which results from mutual interaction with the systems environment.
- iv. **Process:** the changes resulting from these interactions are called processes.
- v. **Holism and emergent properties:** a system is a whole which exhibits properties which only have meaning in terms of the interactive processes of its components.
- vi. **Identity:** the properties of a system that enable it to be identified and separated from other things which are not part of the system.
- vii. **Environment:** there are things which are not part of the system, which significantly affect it, but which the system can only marginally influence, called the environment of the system.
- viii. **Conceptualization:** a system is a concept whose particular form reflects the aims and values of the individual or group whose concept it is. Having dwelt much on the concept of system from the foregoing, what then is management system?

2.4 Management System Definition

According to Wurishe, (2021, p.1356), management system is defined as the main structures, pillars or poles upon which an organization is built and functions. In his words, the structures are necessarily important for the performance of any managerial function and the successful realization of any managerial goal or target. Describing the pillars or structures, Wurishe on (p.1356) says that they include: production; marketing; personnel; finance; communication;

research and development; and any other structure deemed appropriate and necessary in an organization. Furthermore, Wurishe on (p.1358) says that to ensure an efficient and effective management practices and performance in an organization, these systems or department are programmed to work in units and subunits; and in teams and sub teams; led by managers and supervisors, who are sometime called directors and managers. Therefore according to him, management becomes a wholesome and functional system, only when all the activities of the various departments are well coordinated and streamlined to achieve the desired organizational goals.

Wurishe on (pp. 1358-1360) describes the management system to include:

- i. The personnel system otherwise called the human resource department which ensures the steady and smooth direction of human activity in an organization, including welfare and safety.
- ii. The production system: the production system operates with some factors of production, namely, land, labour, capital and entrepreneurship.
- iii. The marketing system: the marketing system begins where production system ends by deploying all necessary resources available to the organization to ensure profit, survival and growth.
- iv. The communication system: the communication system in an organization involves the effective transmission of information from within and outside the establishment to the appropriate quarters, where the information is needed.
- v. The research and Development System: research and development system is also an important pole in any organization, since the use of appropriate data stems from research and other investigative services.

2.5 Systems Theory Applications in Management

Mele, et al (2010, pp. 130-131) provided example about how systems theory and systems thinking could be applied in management and marketing in addition to the concept of service systems engineering. It is explained thus:

Knowledge

The firm is seen as a learning system and as having a set of skills and competences that enables it to produce its own knowledge.

Value

The firm under here is seen as a holistic system, characterized by a high degree of integration between the factors intervening in the process of value creation.

Quality

It is necessary to focus on the link between total quality management and systems thinking when quality issues are discussed.

Environment

If the organization is the system at the micro level, then the environment is the system at the macro level.

Relationships

According to the viable system model by Christopher (2007) as cited Mele et al (2010, p.131), competitive firm behavior is strictly linked to the ability to identify and manage functions and

relationships, thereby establishing communication channels, organizing information flow, and rationalizing and harmonizing a firm's development aligned with all external relationships.

Adaptation

According to the viable systems approach of Banle and Polese (2010) as cited in Mele et al (2010), any organization has to be able to preserve its viability and stability, creating its own internal environment that is able to respond effectively to external stimuli at all levels (viability). Organizations are considered viable systems if they are able to survive in a particular context due to continual dynamic processes and several kinds of internal changes (adaptability).

Complexity

Networked systems can be described based on three parameters: variety (possible variance that a phenomenon may present to the observer), variability (variety observed over time) and indeterminacy (the ability to fully understand a phenomenon).

3.1 Methodology

An exploration method was deployed by embarking on searching to know more about the system theory mostly through the use of secondary sources of data. The data used were collected from sources such as: text books and online periodicals.

4.1 Analysis

Having collected data from several secondary sources, the authors in this article would like to analyze the data in a qualitative approach as follows.

- i. The concept of systems theory has been described as a theoretical perspective of describing practice and performance of management.
- ii. Management system as it practiced has sub-systems otherwise known as pillars or structures upon which goals are achieved such as personnel system; production system; marketing system; finance system; communication system; research and development system which must interface with one another in order to ensure achievement of organizational set objectives.
- iii. Management practice is universal whether it is profit or non-profit organizational sector, the function of planning, organizing, staffing, leading and control must be observed.
- iv. In addition, the systems concept of management has uniform qualities by which it be described including: components, connection, interaction, process, holism and emergent properties, identity, environment and conceptualization.
- v. Management in its development passed through different thoughts and theories depending on different writers in the field of management.

5.1 Conclusion

This paper based on the findings through a conceptual review of systems theory would like to conclude that management has passed through various stages of development, many and varied school of thoughts and theories are abounding. Systems thinking in practicing management, whether in the public or private, profit or not profit making organizations are important as that help in ensuring achievement of set targets and goals of any giving organization. Is it therefore

safe to conclude that pillars or structures of organization which are otherwise known as systems must be practiced in interrelated manner such that an organization could be seen as a whole so that overall objectives are collectively pursued than focusing on departmental targets at the expense of the centre. It could be suggested here that managers of all enterprises be profit or non-profit making should as a matter of necessity promote the practice of system in their various organizations, emphasizing the importance of every subsystem/department of the enterprise to the success of the enterprise as a whole system.

References

- Chikere, C. C. & Nwoka, J. (2015). The systems theory of management in modern day organizations – a study of Aldgate Congress Resort Limited Port Harcourt. *International Journal of Scientific and Research Publications*, 5(9) pp. 1-7.
- Elujekwute, E. C., Umar, I., Danburam, I. U., & Uwalaka, M. C. (2022). Relevance of the system theory to the effective and efficient management of education in Nigeria. *Sapientia Foundation Journal of Education, Sciences and Gender Studies (SFJESGS)*, 4(3), pp. 277- 284.
- iEduNote, (2023). *Management definition*. Accessed via Googlesearch @ <https://www.iedunote.com/management>.
- Mele, C., Polese, F. & Pels, J. (2010). A brief review of systems theories and their managerial applications. *Service Science* 2 (1/2), pp. 126-135.
- Weihrich, H., Cannice, M. V. & Koontz (2008). *Management: A global and entrepreneurial perspective*. (12 ed). New Delhi: McGraw-Hill Publishing Company Limited.
- Wurische, I. Y. (2021). Management systems theory, a practical approach. *Global Scientific Journals* 9(5) pp. 1354-1394.